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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,358	12/12/2003	Manami Haraguchi	00684.003561	8715
5514	7590	10/26/2005	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			CHEN, SOPHIA S	
			ART UNIT	PAPER NUMBER
			2852	

DATE MAILED: 10/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,358

Applicant(s)

HARAGUCHI ET AL.

Examiner

Sophia S. Chen

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,5 and 8-15 is/are rejected.
7) ☒ Claim(s) 2-4,6 and 7 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 30 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/30/05.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: See Continuation Sheet.

Continuation of Attachment(s) 6). Other: English translation of 06-289705 and 05-257376.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 10 to 11 of the amendment, filed 9/30/05, with respect to the rejection(s) of claim(s) 1 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of new references, Kobayashi et al. (JP 06-289705) and Aoki et al. (JP 05-257376)

Drawings

2. The drawings were received on 9/30/05. These drawings are approved.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1 and 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakaizawa et al. (US Pat. No. 6,345,166 B1; cited in Form PTO-892 with Paper No. 20050628) in view of Kobayashi et al. (JP 06-289705; cited in Form PTO-1449 filed 9/30/05).

Sakaizawa et al. discloses a developing apparatus comprising: a developer carrying member 8 for carrying a developer T to develop an electrostatic latent image formed on an image bearing member 1, the developer carrying member 8 having an elastic property (column 5, lines 40-43 and Figure 1); scraping/supplying member 9, contacted into the developer carrying member 8, for supplying the developer T to the developer carrying member 8 and for scraping the developer T off the developer carrying member 8, the scraping/supplying member 9 having an elastic property (column 5, lines 48-50 and column 8, lines 1-9); the developer carrying member 8 has a hardness which is higher than that of the scraping/supplying member 9 (inherently, because the foamed urethane rubber sponge is softer than the silicone rubber; column 8, line 67 to column 9, line 3 and column 10, lines 4-7); the scraping/supplying member 9 is provided with a supporting shaft 9a and an elastic foam member 9b on the supporting shaft 9a (column 8, line 65 to column 9, line 1); a relative peripheral speed between the developer carrying member 8 and the scraping/supplying member 9 is 50-600 mm/sec ($145 \text{ mm/sec} + 70 \text{ mm/sec} = 215 \text{ mm/sec}$; column 5, lines 42-47; column 6, lines 7-9 and 22-31); a direction of peripheral movement of the scraping/supplying member 9 is opposite a direction of peripheral movement of the developer carrying member 8 at the position of the contact (column 5, lines 50-53 and Figure 1); the

developer T is non-magnetic one-component developer (column 5, lines 12-14); the developer T has a weight average particle size of 3-10 microns (column 14, lines 12-18); the developer T has a shape factor SF-1 of 100-150, and a shape factor SF-2 of 100-140 (column 13, lines 29-31); and the developer carrying member 8 is contactable to the image bearing member 1 (column 5, lines 40-42 and Figure 1).

The patent differs from the instant claimed invention in not disclosing a radius of curvature of the scraping/supplying member is larger than a radius of curvature of the developer carrying member at a position of contact between the scraping/supplying member and the developer carrying member.

Kobayashi et al. discloses a developing apparatus comprising a developer carrying member 110; a scraping/supplying member 112; and the developer carrying member 110 and the scraping/supplying member 112 satisfy that in a state in which the scraping/supplying member 112 is out of contact with the developer carrying member 110, a radius of curvature of the scraping/supplying member 112 is larger than a radius of curvature of the developer carrying member 110 at a position of contact between the scraping/supplying member 112 and the developer carrying member 110 (paragraph [0059] and Figure 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the radii of curvature as taught by Kobayashi et al. in place of the radii of Sakaizawa et al. because of the same functionality for supplying/scraping toner.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakaizawa et al. in view of Kobayashi et al. as applied to claim 1 above, and further in view of Honda et al. (US Pat. No. 5,324,884; cited in Form PTO-892 filed 20050628)

Sakaizawa et al., as discussed above, differs from the instant claimed invention in not disclosing the developer carrying member having an Asker C hardness of 30-70 degrees.

Honda et al. discloses a developing apparatus comprising a developer carrying member 33; a scraping/supplying member 34; and the developer carrying member 33 being formed of a conductive silicone rubber having an Asker C hardness of 30-70 degrees (35 degrees; column 7, lines 51-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the hardness as taught by Honda et al. to the developer carrying member of Sakaizawa et al. because both developer carrying members of Sakaizawa et al. and Honda et al. are formed of the same material (silicone rubber).

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakaizawa et al. in view of Kobayashi et al. as applied to claim 1 above, and further in view of Aoki et al. (JP 05-257376; cited in Form PTO-1449 filed 9/30/05)

Sakaizawa et al. in view of Kobayashi et al., as discussed above, differs from the instant claimed invention in not disclosing a peripheral speed of the developer carrying member is lower than part of the scraping/supplying member.

Aoki et al. discloses a developing apparatus comprising a developer carrying member 4; a scraping/supplying member 5; and a peripheral speed of the developer

carrying member is lower or higher than part of the scraping/supplying member (paragraph [0016]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the peripheral speed as taught by Aoki et al. in place of the peripheral speed of Sakaizawa et al. in view of Kobayashi et al. because Aoki et al. teaches that the toner can be supplied/scraped as long as the peripheral speed of scraping/supplying member is set up by about 0.5 to 105 times of the peripheral speed of the developer carrying member.

Allowable Subject Matter

8. Claims 2-4, 6, and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sophia S. Chen whose telephone number is (571) 272-2133. The examiner can normally be reached on M-F (7:00-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sophia S. Chen
Primary Examiner
Art Unit 2852

Ssc
October 24, 2005